

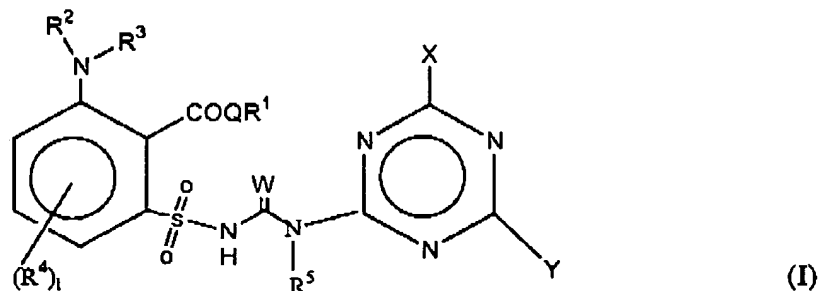
PATENT  
514413-3802.1

### In the Claims

Claims 1-22 (cancelled)

Claim 23 (new)

23. A compound of the formula (I) or a salt thereof



in which

- $R^1$  is H,  $(C_1-C_6)$ alkyl,  $(C_3-C_6)$ alkenyl,  $(C_3-C_6)$ alkynyl, where each of the three last-mentioned radicals is unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, unsubstituted and substituted phenyl, unsubstituted and substituted heterocyclyl, unsubstituted and substituted  $(C_3-C_6)$ cycloalkyl,  $(C_1-C_4)$ alkoxy,  $(C_1-C_4)$ alkylthio,  $[(C_1-C_4)alkoxy]carbonyl$  and  $[(C_1-C_4)haloalkoxy]carbonyl$ , or is unsubstituted or substituted  $(C_3-C_6)$ cycloalkyl, substituted or unsubstituted  $(C_3-C_6)$ cycloalkenyl, unsubstituted or substituted phenyl, unsubstituted or substituted heterocyclyl having 3 to 6 ring atoms, where substituted phenyl, substituted heterocyclyl, substituted cycloalkyl or substituted cycloalkenyl carry, as substituents, one or more radicals selected from the group consisting of halogen,  $(C_1-C_4)$ alkyl,  $(C_1-C_4)haloalkyl$ ,  $(C_1-C_4)alkoxy$ ,  $(C_1-C_4)alkyl$ ,  $di[(C_1-C_4)alkoxy](C_1-C_4)alkyl$ ,  $(C_1-C_4)haloalkoxy$ ,  $(C_1-C_4)alkylthio$ ,  $(C_1-C_4)alkylsulfinyl$ ,  $(C_1-C_4)haloalkylsulfinyl$ ,  $(C_1-C_4)alkylsulfonyl$ ,  $(C_1-C_4)haloalkylsulfonyl$ ,  $NR^8R^9$ ,  $[(C_1-C_4)alkoxy]carbonyl$ ,  $[(C_1-C_4)haloalkoxy]carbonyl$ ,  $[(C_1-C_4)alkyl]carbonyl$ , OH, phenyl, CN and  $NO_2$  and
- $R^2$  is a group of the formula  $R^0-Q^0$ ,  
in which  $R^0$  is a hydrogen atom,  $(C_1-C_{12})$ alkyl,  $(C_2-C_{12})$ alkenyl or  $(C_2-C_{12})$ alkynyl, where each the three last-mentioned radicals is unsubstituted or substituted by one or more radicals selected from the group consisting of halogen,  $(C_1-C_6)$ alkoxy,

PATENT  
514413-3802.1

(C<sub>1</sub>-C<sub>6</sub>)haloalkoxy, (C<sub>1</sub>-C<sub>6</sub>)alkylthio, (C<sub>1</sub>-C<sub>6</sub>)haloalkylthio, (C<sub>1</sub>-C<sub>6</sub>)alkylsulfinyl, (C<sub>1</sub>-C<sub>6</sub>)haloalkylsulfinyl, (C<sub>1</sub>-C<sub>6</sub>)alkylsulfonyl, (C<sub>1</sub>-C<sub>6</sub>)haloalkylsulfonyl, [(C<sub>1</sub>-C<sub>6</sub>)alkoxycarbonyl, [(C<sub>1</sub>-C<sub>6</sub>)haloalkoxy]carbonyl, CONR<sup>6</sup>R<sup>7</sup>, SO<sub>2</sub>NR<sup>6</sup>R<sup>7</sup>, CN, OH, SH, (C<sub>3</sub>-C<sub>6</sub>)cycloalkyl, NR<sup>8</sup>R<sup>9</sup>, unsubstituted or substituted phenyl, unsubstituted or substituted heterocyclyl, or is (C<sub>3</sub>-C<sub>6</sub>)cycloalkyl, (C<sub>3</sub>-C<sub>6</sub>)cycloalkenyl, phenyl or heterocyclyl, where the four last-mentioned radicals may be unsubstituted or substituted, and in which Q<sup>0</sup> is a direct bond or a divalent group of the formula -O- or -N(R<sup>#</sup>) where R<sup>#</sup> is a hydrogen atom, an acyl radical or (C<sub>1</sub>-C<sub>12</sub>)alkyl, (C<sub>2</sub>-C<sub>12</sub>)alkenyl or (C<sub>2</sub>-C<sub>12</sub>)alkynyl, where each of the 3 last-mentioned radicals is unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C<sub>1</sub>-C<sub>6</sub>)alkoxy, (C<sub>1</sub>-C<sub>6</sub>)haloalkoxy, (C<sub>1</sub>-C<sub>6</sub>)alkylthio, (C<sub>1</sub>-C<sub>6</sub>)haloalkylthio, CN, OH, (C<sub>3</sub>-C<sub>6</sub>)cycloalkyl, unsubstituted or substituted phenyl, unsubstituted or substituted heterocyclyl,

or is unsubstituted or substituted (C<sub>3</sub>-C<sub>6</sub>)cycloalkyl, unsubstituted or substituted (C<sub>3</sub>-C<sub>6</sub>)cycloalkenyl or unsubstituted or substituted phenyl, and R<sup>0</sup> and R<sup>#</sup> together with the nitrogen atom of the NR<sup>#</sup> R<sup>0</sup> group may form a heterocyclyl radical, having 3 to 6 ring atoms, which is unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkoxy, [(C<sub>1</sub>-C<sub>6</sub>)alkoxy]carbonyl, (C<sub>1</sub>-C<sub>6</sub>)haloalkyl and oxo,

R<sup>3</sup> is a hydrogen atom, (C<sub>1</sub>-C<sub>12</sub>)alkyl; (C<sub>2</sub>-C<sub>12</sub>)alkenyl or (C<sub>2</sub>-C<sub>12</sub>)alkynyl, where each of the 3 last-mentioned radicals is unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C<sub>1</sub>-C<sub>6</sub>)alkoxy, (C<sub>1</sub>-C<sub>6</sub>)haloalkoxy, (C<sub>1</sub>-C<sub>6</sub>)alkylthio, (C<sub>1</sub>-C<sub>6</sub>)haloalkylthio, (C<sub>1</sub>-C<sub>6</sub>)alkylsulfinyl, (C<sub>1</sub>-C<sub>6</sub>)haloalkylsulfinyl, (C<sub>1</sub>-C<sub>6</sub>)alkylsulfonyl, (C<sub>1</sub>-C<sub>6</sub>)haloalkylsulfonyl, [(C<sub>1</sub>-C<sub>6</sub>)alkoxy]carbonyl, [(C<sub>1</sub>-C<sub>6</sub>)haloalkoxy]carbonyl, CONR<sup>6</sup>R<sup>7</sup>, SO<sub>2</sub>NR<sup>6</sup>R<sup>7</sup>, CN, OH, (C<sub>3</sub>-C<sub>6</sub>)cycloalkyl, NR<sup>8</sup>R<sup>9</sup>, unsubstituted or substituted phenyl, unsubstituted or substituted heterocyclyl, or is unsubstituted or substituted (C<sub>3</sub>-C<sub>6</sub>)cycloalkyl,

PATENT  
514413-3802.1

unsubstituted or substituted (C<sub>3</sub>-C<sub>6</sub>)cycloalkenyl, unsubstituted or substituted heterocyclyl, or unsubstituted or substituted phenyl, and

R<sup>2</sup> and R<sup>3</sup> together with the nitrogen atom of the NR<sup>2</sup>R<sup>3</sup> group (N<sup>1</sup>) may form a heterocyclyl radical, having 3 to 6 carbon ring atoms, which is unsubstituted or substituted and which one of the carbon atoms is optionally replaced by one heteroatom selected from the group consisting of N, O, and S, by one or more radicals selected from the group consisting of halogen, (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkoxy, [(C<sub>1</sub>-C<sub>6</sub>)alkoxy]carbonyl, (C<sub>1</sub>-C<sub>6</sub>)haloalkyl and oxo, where the oxo radical is not adjacent to the nitrogen atom (N<sup>1</sup>), and

R<sup>4</sup> independently of one another are halogen NH<sub>2</sub>, NO<sub>2</sub>, NHOH, NO, NH-NH<sub>2</sub>, N<sub>3</sub>, CN, (C<sub>1</sub>-C<sub>4</sub>)alkyl, (C<sub>1</sub>-C<sub>4</sub>)alkoxy, (C<sub>2</sub>-C<sub>6</sub>)alkenyl, (C<sub>2</sub>-C<sub>6</sub>)alkynyl, (C<sub>3</sub>-C<sub>6</sub>)alkenyloxy, (C<sub>3</sub>-C<sub>6</sub>)alkynyloxy, where each of the 6 last-mentioned radicals is unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C<sub>1</sub>-C<sub>6</sub>)alkoxy, (C<sub>1</sub>-C<sub>6</sub>)haloalkoxy, (C<sub>1</sub>-C<sub>6</sub>)alkylthio, (C<sub>1</sub>-C<sub>6</sub>)haloalkylthio, (C<sub>1</sub>-C<sub>6</sub>)alkylsulfinyl, (C<sub>1</sub>-C<sub>6</sub>)haloalkylsulfinyl, (C<sub>1</sub>-C<sub>6</sub>)alkylsulfonyl, (C<sub>1</sub>-C<sub>6</sub>)haloalkylsulfonyl, [(C<sub>1</sub>-C<sub>6</sub>)alkoxy]carbonyl, [(C<sub>1</sub>-C<sub>6</sub>)haloalkoxy]carbonyl, CONR<sup>6</sup>R<sup>7</sup>, SO<sub>2</sub>NR<sup>6</sup>R<sup>7</sup>, CN, OH, (C<sub>3</sub>-C<sub>6</sub>)cycloalkyl, NR<sup>8</sup>R<sup>9</sup>, unsubstituted or substituted phenyl or unsubstituted or substituted heterocyclyl,

or

is unsubstituted or substituted (C<sub>3</sub>-C<sub>6</sub>)cycloalkyl, unsubstituted or substituted (C<sub>3</sub>-C<sub>6</sub>)cycloalkenyl, unsubstituted or substituted heterocyclyl, unsubstituted or substituted phenyl, [(C<sub>1</sub>-C<sub>4</sub>)alkyl]carbonyl or [(C<sub>1</sub>-C<sub>4</sub>)alkoxy]carbonyl, where each of the two last-mentioned radicals is unsubstituted or substituted in the alkyl moiety by one or more halogen atoms, or is a radical of the formula C(O)-NR'-R'', C(S)-NR'-R'', CR'=N-Q<sup>1</sup>-R'', S(O)<sub>m</sub>-Q<sup>1</sup>-R''', P(O)<sub>n</sub>-(Q<sup>1</sup>-R''''Q<sup>2</sup>-R''), NR'-Q<sup>1</sup>-R'' or NR''-N=CR'-R'', where R', R'' and R''' independently of one another are a hydrogen atom, an acyl radical or an unsubstituted or substituted (C<sub>1</sub>-C<sub>10</sub>)hydrocarbon radical, R'''' is a carbon-containing acyl radical or an unsubstituted or substituted (C<sub>1</sub>-C<sub>10</sub>)hydrocarbon radical, and Q<sup>1</sup> and Q<sup>2</sup> independently of one another are a direct bond or a divalent group of the formula -O- or -N(R<sup>+</sup>)-, where R<sup>+</sup> is a hydrogen atom, an aryl radical, or an unsubstituted or substituted (C<sub>1</sub>-C<sub>10</sub>)hydrocarbon radical, and m = 0, 1, 2

PATENT  
514413-3802.1

or 3, and  $n = 0, 1$  or  $2$ , and  $R'$  together with  $R''$ ,  $R^+$  together with  $R'$ ,  $R^+$  together with  $R''$  or  $R^+$  together with  $R'''$  may in each case form a heterocyclyl radical having 3 to 6 carbon ring atoms which is unsubstituted by one or more radicals selected from the group consisting of halogen,  $(C_1-C_6)$ alkyl,  $(C_1-C_6)$ alkoxy,  $[(C_1-C_6)$ alkoxy]carbonyl,  $(C_1-C_6)$ haloalkyl and oxo,

1 is 0, 1 or 2;

$R^5$  is H or  $(C_1-C_4)$ alkyl which is unsubstituted or substituted,

$R^6$  and  $R^7$  independently of one another are H,  $(C_1-C_6)$ alkyl,  $(C_3-C_6)$ alkenyl,  $(C_3-C_6)$ alkynyl, unsubstituted or substituted phenyl or unsubstituted or substituted heterocyclyl or

$R^6$  and  $R^7$  together with the nitrogen atom of the  $NR^6R^7$  group may form a heterocyclyl radical having 5 or 6 carbon atoms which may optionally be replaced by one heteroatom selected from the group consisting of N, O and S and which is unsubstituted or mono- or polysubstituted by radicals selected from the group consisting of  $(C_1-C_4)$ alkyl and oxo, and

$R^8$  and  $R^9$  independently of one another are  $(C_1-C_4)$ alkylcarbonyl,  $(C_1-C_4)$ haloalkylcarbonyl,  $(C_1-C_4)$ alkoxycarbonyl or  $(C_1-C_4)$ alkylsulfonyl or together with the nitrogen atom, of the  $NR^8R^9$  group may form a heterocyclyl radical having 5 or 6 carbon ring atoms which may be optionally replaced by one additional heteroatom selected from the group consisting of N, O and S and which is unsubstituted or mono- or polysubstituted by radicals selected from the group consisting of  $(C_1-C_4)$ alkyl and oxo, and

Q is O, S or  $NR^*$ ,

$R^*$  is  $(C_1-C_4)$ alkyl,  $(C_3-C_4)$ alkenyl or  $(C_3-C_4)$ alkynyl, where each of the three last-mentioned radicals is unsubstituted or substituted by one or more radicals selected from the group consisting of halogen,  $(C_1-C_4)$ alkoxy and  $(C_1-C_4)$ alkylthio, and

$R^*$  and  $R^1$  together with the nitrogen atom of the  $NR^*R^1$  group may form a heterocyclyl radical which is unsubstituted or substituted by one or more radicals selected from the group consisting of halogen,  $(C_1-C_6)$ alkyl,  $(C_1-C_6)$ alkoxy,  $[(C_1-C_6)$ alkoxy]carbonyl,

PATENT  
514413-3802.1(C<sub>1</sub>-C<sub>6</sub>)haloalkyl and oxo,

W is an oxygen atom or a sulfur atom,

X, Y independently of one another are H, halogen, (C<sub>1</sub>-C<sub>4</sub>)alkyl, (C<sub>1</sub>-C<sub>4</sub>)alkoxy,(C<sub>1</sub>-C<sub>4</sub>)alkylthio, where each of the three last-mentioned radicals is unsubstituted or substituted by one or more radicals from the group consisting of halogen, (C<sub>1</sub>-C<sub>4</sub>)alkoxy and (C<sub>1</sub>-C<sub>4</sub>)alkylthio, are mono- or di[(C<sub>1</sub>-C<sub>4</sub>)alkyl]amino, (C<sub>3</sub>-C<sub>5</sub>)alkenyl,(C<sub>3</sub>-C<sub>5</sub>)alkenyloxy, (C<sub>3</sub>-C<sub>5</sub>)alkynyl or (C<sub>3</sub>-C<sub>5</sub>)alkynyloxy, andwhere the radicals R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, and R<sup>4</sup>, including substituents, have up to 20 carbon atoms, and wherein, if not otherwise specified:

- heterocyclyl is a saturated or unsaturated ring having 3 to 7 ring atom or a heteroaromatic ring having 5 or 6 ring atoms, and wherein one of the ring atoms is a heteroatom selected from the group consisting of N, O, or S and the remaining ring atoms are carbon atoms or is a radical selected from the group consisting of pyrimidinyl, pyridazinyl, pyrazinyl, triazinyl, thiazolyl, oxazolyl, pyrazolyl, and imidazolyl, pyrrolidyl, piperidyl, piperazinyl, dioxolanyl, or morpholinyl;
- substituents for the (C<sub>3</sub>-C<sub>6</sub>)cycloalkyl, (C<sub>3</sub>-C<sub>6</sub>) cycloalkenyl, phenyl, or heterocyclic rings or the (C<sub>1</sub>-C<sub>10</sub>)hydrocarbon radical, unless otherwise specified are 1, 2, or 3 radicals selected from the group consisting of halogen, alkoxy, haloalkoxy, alkylthio, hydroxyl, amino, nitro, carboxyl, cyano, azido, alkoxycarbonyl, alkylcarbonyl, formyl, carbamoyl, mono- and dialkylaminocarbonyl, acylamino, NR<sup>8</sup>R<sup>9</sup>, mono-, and dialkylamino, and alkylsulfinyl, haloalkylsulfinyl, alkylsulfonyl, haloalkylsulfonyl, alkyl and haloalkyl alkenyl, alkynyl, alkenyloxy, alkynyloxy, and phenyl which is optionally substituted by one or more radicals selected from the group consisting of halogen, (C<sub>1</sub>-C<sub>4</sub>) alkyl, (C<sub>1</sub>-C<sub>4</sub>)haloalkyl, (C<sub>1</sub>-C<sub>4</sub>)alkoxy, (C<sub>1</sub>-C<sub>4</sub>)haloalkoxy, (C<sub>1</sub>-C<sub>4</sub>)alkylthio, (C<sub>1</sub>-C<sub>4</sub>)alkylsulfinyl, (C<sub>1</sub>-C<sub>4</sub>)alkylsulfonyl, [(C<sub>1</sub>-C<sub>4</sub>)alkoxy]carbonyl, [(C<sub>1</sub>-C<sub>4</sub>)alkyl]carbonyl, NR<sup>8</sup>R<sup>9</sup>, phenyl, CN and NO<sub>2</sub>.

## Claim 24 (new)

24. The compound of the formula (I) or salt thereof according to claim 23, in which

R<sup>1</sup> is (C<sub>1</sub>-C<sub>6</sub>)alkyl which is unsubstituted or substituted by one or more radicals selected from the group consisting of halogen and (C<sub>1</sub>-C<sub>4</sub>)alkoxy, or is 3-oxetanyl,

PATENT  
514413-3802.1

- (C<sub>3</sub>-C<sub>4</sub>)alkenyl or (C<sub>3</sub>-C<sub>4</sub>)alkynyl,
- R<sup>2</sup> is H, (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>3</sub>-C<sub>6</sub>)alkenyl, (C<sub>3</sub>-C<sub>6</sub>)alkynyl, where each of the three last-mentioned radicals is unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C<sub>1</sub>-C<sub>4</sub>)alkoxy, (C<sub>1</sub>-C<sub>4</sub>)alkylthio, (C<sub>1</sub>-C<sub>4</sub>)alkylsulfonyl, [(C<sub>1</sub>-C<sub>4</sub>)alkoxy]carbonyl, (C<sub>3</sub>-C<sub>6</sub>)cycloalkyl, CN and OH, or is (C<sub>3</sub>-C<sub>6</sub>)cycloalkyl which is unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C<sub>1</sub>-C<sub>4</sub>)alkyl, (C<sub>1</sub>-C<sub>4</sub>)alkoxy, [(C<sub>1</sub>-C<sub>4</sub>)alkoxy]carbonyl, CN and OH, or is (C<sub>3</sub>-C<sub>6</sub>)cycloalkenyl, (C<sub>1</sub>-C<sub>4</sub>)alkoxy, (C<sub>1</sub>-C<sub>4</sub>)alkenyloxy, (C<sub>1</sub>-C<sub>4</sub>)alkylamino or di[(C<sub>1</sub>-C<sub>4</sub>)alkyl]amino and
- R<sup>3</sup> is H, (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>3</sub>-C<sub>6</sub>)alkenyl, (C<sub>3</sub>-C<sub>6</sub>)alkynyl, where each of the three last-mentioned radicals is unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C<sub>1</sub>-C<sub>4</sub>)alkoxy, (C<sub>1</sub>-C<sub>4</sub>)alkylthio, (C<sub>1</sub>-C<sub>4</sub>)alkylsulfonyl, [(C<sub>1</sub>-C<sub>4</sub>)alkoxy]carbonyl; (C<sub>3</sub>-C<sub>6</sub>)cycloalkyl, CN and OH, or is (C<sub>3</sub>-C<sub>6</sub>)cycloalkyl which is unsubstituted or-substituted by one or more radicals selected from the group consisting of halogen, (C<sub>1</sub>-C<sub>4</sub>)alkyl, (C<sub>1</sub>-C<sub>4</sub>)alkoxy, [(C<sub>1</sub>-C<sub>4</sub>)alkoxy]carbonyl, CN and OH, or is (C<sub>3</sub>-C<sub>6</sub>)cycloalkenyl or
- R<sup>2</sup> and R<sup>3</sup> together with the nitrogen atom (N<sup>1</sup>) may form a heterocyclyl of 3 to 6 carbon ring and which is unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkoxy, [(C<sub>1</sub>-C<sub>3</sub>)alkoxy]carbonyl and oxo, where the oxo radical is not adjacent to the nitrogen atom (N<sup>1</sup>), and
- R<sup>4</sup> are (C<sub>1</sub>-C<sub>4</sub>)alkyl, (C<sub>1</sub>-C<sub>4</sub>)haloalkyl, (C<sub>1</sub>-C<sub>4</sub>)alkoxy or halogen, NH<sub>2</sub>, NO<sub>2</sub>, NHOH, NO, NH-NH<sub>2</sub> or NH<sub>3</sub>
- l is 0 or 1,
- R<sup>5</sup> is H or C<sub>1</sub>-C<sub>4</sub> alkyl,
- Q is O or NR<sup>\*</sup>,
- R<sup>\*</sup> is H or (C<sub>1</sub>-C<sub>4</sub>)alkyl, (C<sub>3</sub>-C<sub>4</sub>)alkenyl, or (C<sub>3</sub>-C<sub>4</sub>)alkynyl
- X and Y independently of one another are (C<sub>1</sub>-C<sub>4</sub>)alkyl, (C<sub>1</sub>-C<sub>4</sub>)alkoxy, where each of the two last-mentioned radicals is unsubstituted or substituted by one or

PATENT  
514413-3802.1

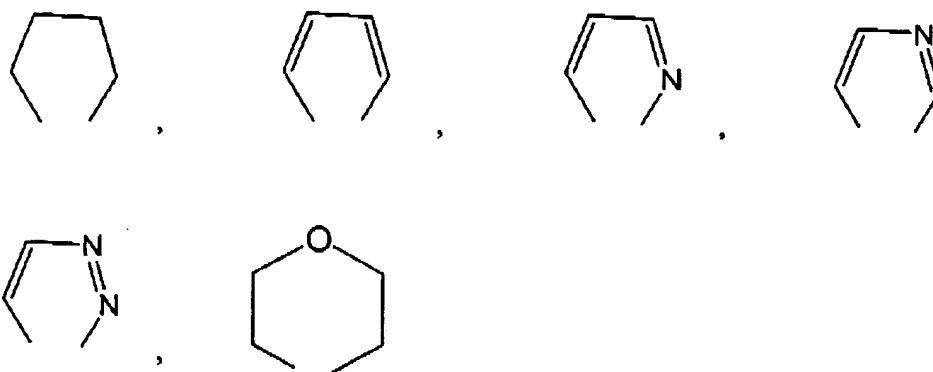
more halogen atoms, or are (C<sub>1</sub>-C<sub>4</sub>)alkylthio, halogen or mono- or di[(C<sub>1</sub>-C<sub>2</sub>)alkyl]amino, and  
W is an oxygen atom or a sulfur atom.

## Claim 25 (new)

25. A compound or salt thereof according to claim 23 wherein

- R<sup>1</sup> is (C<sub>1</sub>-C<sub>6</sub>)alkyl which is unsubstituted or substituted by one or more radicals selected from the group consisting of halogen and (C<sub>1</sub>-C<sub>4</sub>)alkoxy, or is 3-oxetanyl, (C<sub>3</sub>-C<sub>4</sub>)alkenyl or (C<sub>3</sub>-C<sub>4</sub>)alkynyl,
- R<sup>2</sup> is H, (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>3</sub>-C<sub>6</sub>)alkenyl, (C<sub>3</sub>-C<sub>6</sub>)alkynyl, where each of the three last-mentioned radicals is unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C<sub>1</sub>-C<sub>4</sub>)alkoxy, (C<sub>1</sub>-C<sub>4</sub>)alkylthio, (C<sub>1</sub>-C<sub>4</sub>)alkylsulfonyl, [(C<sub>1</sub>-C<sub>4</sub>)alkoxy]carbonyl, (C<sub>3</sub>-C<sub>6</sub>)cycloalkyl, CN and OH, or is (C<sub>3</sub>-C<sub>6</sub>)cycloalkyl which is unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C<sub>1</sub>-C<sub>4</sub>)alkyl, (C<sub>1</sub>-C<sub>4</sub>)alkoxy, [(C<sub>1</sub>-C<sub>4</sub>)alkoxy]carbonyl, CN and OH, or is (C<sub>3</sub>-C<sub>6</sub>)cydoalkenyl, (C<sub>1</sub>-C<sub>4</sub>)alkoxy, (C<sub>1</sub>-C<sub>4</sub>)alkenyloxy, (C<sub>1</sub>-C<sub>4</sub>)alkylamino or di[(C<sub>1</sub>-C<sub>4</sub>)alkyl]amino and
- R<sup>3</sup> is H, (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>3</sub>-C<sub>6</sub>)alkenyl, (C<sub>3</sub>-C<sub>6</sub>)alkynyl, where each of the three last-mentioned radicals is unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C<sub>1</sub>-C<sub>4</sub>)alkoxy, (C<sub>1</sub>-C<sub>4</sub>)alkylthio, (C<sub>1</sub>-C<sub>4</sub>)alkylsulfonyl, [(C<sub>1</sub>-C<sub>4</sub>)alkoxy]carbonyl, (C<sub>3</sub>-C<sub>6</sub>)cycloalkyl, CN and OH, or is (C<sub>3</sub>-C<sub>6</sub>)cycloalkyl which is unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C<sub>1</sub>-C<sub>4</sub>)alkyl, (C<sub>1</sub>-C<sub>4</sub>)alkoxy, [(C<sub>1</sub>-C<sub>4</sub>)alkoxy]carbonyl, CN and OH, or is (C<sub>3</sub>-C<sub>6</sub>)cycloalkenyl or
- R<sup>2</sup> and R<sup>3</sup> together with the nitrogen atom (N<sup>1</sup>) may form heterocyclic ring of the formulae:

PATENT  
514413-3802.1



- unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>3</sub>)alkoxy, [(C<sub>1</sub>-C<sub>3</sub>)alkoxy]carbonyl and oxo, and
- R<sup>4</sup> are (C<sub>1</sub>-C<sub>4</sub>)alkyl, (C<sub>1</sub>-C<sub>4</sub>)haloalkyl, (C<sub>1</sub>-C<sub>4</sub>)alkoxy or halogen,
- l is 0 or 1,
- R<sup>5</sup> is H or methyl,
- Q is O,
- X and Y independently of one another are (C<sub>1</sub>-C<sub>4</sub>)alkyl, (C<sub>1</sub>-C<sub>4</sub>)alkoxy, where each of the two last-mentioned radicals is unsubstituted or substituted by one or more halogen atoms, or are (C<sub>1</sub>-C<sub>4</sub>)alkylthio, halogen or mono- or di[(C<sub>1</sub>-C<sub>2</sub>)alkyl]amino, and
- W is an oxygen atom.

Claim 26 (new)

26. A compound of the formula (I) or a salt thereof as claimed in claim 23 in which

- R<sup>1</sup> is H, (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>3</sub>-C<sub>6</sub>)alkenyl or (C<sub>3</sub>-C<sub>6</sub>)alkynyl, where each of the three last-mentioned radicals is unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, phenyl, (C<sub>1</sub>-C<sub>4</sub>)alkoxy, (C<sub>1</sub>-C<sub>4</sub>)alkylthio, (C<sub>3</sub>-C<sub>6</sub>)cycloalkyl or heterocyclyl having 3 to 6 ring atoms and [(C<sub>1</sub>-C<sub>4</sub>)alkoxy]carbonyl, or is (C<sub>3</sub>-C<sub>6</sub>)cycloalkyl, heterocyclyl having 3 to 6 ring atoms, where each of the two last-



PATENT  
514413-3802.1

mentioned radicals is unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C<sub>1</sub>-C<sub>4</sub>)alkyl and (C<sub>1</sub>-C<sub>4</sub>)alkoxy,

R<sup>2</sup> is a group of the formula R<sup>0</sup>-Q<sup>0</sup>- in which

R<sup>0</sup> is a hydrogen atom, (C<sub>1</sub>-C<sub>8</sub>)alkyl, (C<sub>3</sub>-C<sub>8</sub>)alkenyl or (C<sub>3</sub>-C<sub>8</sub>)alkynyl, where each of the three last-mentioned radicals is unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C<sub>1</sub>-C<sub>4</sub>)alkoxy, (C<sub>1</sub>-C<sub>4</sub>)haloalkoxy, (C<sub>1</sub>-C<sub>4</sub>)alkylthio, (C<sub>1</sub>-C<sub>4</sub>)haloalkylthio, (C<sub>1</sub>-C<sub>4</sub>)alkylsulfinyl, (C<sub>1</sub>-C<sub>4</sub>)haloalkylsulfinyl, (C<sub>1</sub>-C<sub>4</sub>)alkylsulfonyl, (C<sub>1</sub>-C<sub>4</sub>)haloalkylsulfonyl, [(C<sub>1</sub>-C<sub>6</sub>)alkoxy]carbonyl, CONR<sup>6</sup>R<sup>7</sup>, SO<sub>2</sub>NR<sup>6</sup>R<sup>7</sup>, CN, OH, (C<sub>3</sub>-C<sub>6</sub>)cycloalkyl, NR<sup>8</sup>R<sup>9</sup> and phenyl which is unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C<sub>1</sub>-C<sub>4</sub>)alkyl, (C<sub>1</sub>-C<sub>4</sub>)haloalkyl, (C<sub>1</sub>-C<sub>4</sub>)alkoxy, (C<sub>1</sub>-C<sub>4</sub>)haloalkoxy, (C<sub>1</sub>-C<sub>4</sub>)alkylthio, (C<sub>1</sub>-C<sub>4</sub>)alkylsulfinyl, (C<sub>1</sub>-C<sub>4</sub>)alkylsulfonyl, NR<sup>8</sup>R<sup>9</sup>, [(C<sub>1</sub>-C<sub>4</sub>)alkoxy]carbonyl, [(C<sub>1</sub>-C<sub>4</sub>)alkyl]carbonyl, phenyl [(C<sub>1</sub>-C<sub>4</sub>)alkyl]carbonyl, CN and NO<sub>2</sub>, or

is heterocyclyl having 3 to 6 ring atoms which is unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C<sub>1</sub>-C<sub>4</sub>)alkyl, (C<sub>1</sub>-C<sub>4</sub>)haloalkyl, (C<sub>1</sub>-C<sub>4</sub>)alkoxy, (C<sub>1</sub>-C<sub>4</sub>)haloalkoxy, (C<sub>1</sub>-C<sub>4</sub>)alkylthio, (C<sub>1</sub>-C<sub>4</sub>)alkylsulfinyl, (C<sub>1</sub>-C<sub>4</sub>)alkylsulfonyl, NR<sup>8</sup>R<sup>9</sup>, [(C<sub>1</sub>-C<sub>4</sub>)alkoxy]carbonyl, [(C<sub>1</sub>-C<sub>4</sub>)alkyl]carbonyl, phenyl, CN and NO<sub>2</sub>, or is (C<sub>3</sub>-C<sub>6</sub>)cycloalkyl which is unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C<sub>1</sub>-C<sub>4</sub>)alkyl, (C<sub>1</sub>-C<sub>4</sub>)haloalkyl, (C<sub>1</sub>-C<sub>4</sub>)alkoxy, (C<sub>1</sub>-C<sub>4</sub>)haloalkoxy, [(C<sub>1</sub>-C<sub>4</sub>)alkoxy]carbonyl, CN, OH and phenyl, or

is (C<sub>3</sub>-C<sub>6</sub>)cycloalkenyl which is unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C<sub>1</sub>-C<sub>4</sub>)alkyl, (C<sub>1</sub>-C<sub>4</sub>)haloalkyl, (C<sub>1</sub>-C<sub>4</sub>)alkoxy and [(C<sub>1</sub>-C<sub>4</sub>)alkoxy]carbonyl, or is phenyl which is unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C<sub>1</sub>-C<sub>4</sub>)alkyl, (C<sub>1</sub>-C<sub>4</sub>)haloalkyl, (C<sub>1</sub>-C<sub>4</sub>)alkoxy, (C<sub>1</sub>-C<sub>4</sub>)haloalkoxy, (C<sub>1</sub>-C<sub>4</sub>)alkylthio, (C<sub>1</sub>-C<sub>4</sub>)alkylsulfinyl, (C<sub>1</sub>-C<sub>4</sub>)alkylsulfonyl, NR<sup>8</sup>R<sup>9</sup>, [(C<sub>1</sub>-C<sub>4</sub>)alkoxy]carbonyl, [(C<sub>1</sub>-C<sub>4</sub>)alkyl]carbonyl, phenyl, CN and NO<sub>2</sub>, and

Q<sup>0</sup> is a direct bond or a divalent group of the formula -O- or -NR<sup>#</sup>, in which R<sup>#</sup> is a hydrogen atom or unsubstituted or substituted (C<sub>1</sub>-C<sub>4</sub>)alkyl,

PATENT  
514413-3802.1

- $R^3$  is a hydrogen atom,  $(C_1-C_8)$ alkyl,  $(C_3-C_8)$ alkenyl or  $(C_3-C_8)$ alkynyl, where each of the three last-mentioned radicals is unsubstituted or substituted by one or more radicals selected from the group consisting of halogen,  $(C_1-C_4)$ alkoxy,  $(C_1-C_4)$ haloalkoxy,  $(C_1-C_4)$ alkylthio,  $(C_1-C_4)$ haloalkylthio,  $(C_1-C_4)$ alkylsulfinyl,  $(C_1-C_4)$ haloalkylsulfinyl,  $(C_1-C_4)$ alkylsulfonyl,  $(C_1-C_4)$ haloalkylsulfonyl,  $[(C_1-C_6)$ alkoxy]carbonyl,  $CONR^6R^7$ ,  $SO_2NR^6R^7$ , CN, OH,  $(C_3-C_6)$ cycloalkyl,  $NR^8R^9$  and phenyl which is unsubstituted or substituted by one or more radicals selected from the group consisting of halogen,  $(C_1-C_4)$ alkyl,  $(C_1-C_4)$ haloalkyl,  $(C_1-C_4)$ alkoxy,  $(C_1-C_4)$ haloalkoxy,  $(C_1-C_4)$ alkylthio,  $(C_1-C_4)$ alkylsulfinyl,  $(C_1-C_4)$ alkylsulfonyl,  $NR^8R^9$ ,  $[(C_1-C_4)$ alkoxy]carbonyl,  $[(C_1-C_4)$ alkyl]carbonyl, phenyl,  $[(C_1-C_4)$ alkyl]carbonyl, CN and  $NO_2$ , or is heterocyclyl having 3 to 6 ring atoms which is unsubstituted or substituted by one or more radicals selected from the group consisting of halogen,  $(C_1-C_4)$ alkyl,  $(C_1-C_4)$ haloalkyl,  $(C_1-C_4)$ alkoxy,  $(C_1-C_4)$ haloalkoxy,  $(C_1-C_4)$ alkylthio,  $(C_1-C_4)$ alkylsulfinyl,  $(C_1-C_4)$ alkylsulfonyl,  $NR^8R^9$ ,  $[(C_1-C_4)$ alkoxy]carbonyl,  $[(C_1-C_4)$ alkyl]carbonyl, phenyl, CN and  $NO_2$ , or is  $(C_3-C_6)$ cycloalkyl which is unsubstituted or substituted by one or more radicals selected from the group consisting of halogen,  $(C_1-C_4)$ alkyl,  $(C_1-C_4)$ haloalkyl,  $(C_1-C_4)$ alkoxy,  $(C_1-C_4)$ haloalkoxy,  $[(C_1-C_4)$ alkoxy]carbonyl, CN, OH and phenyl, or is  $(C_3-C_6)$ cycloalkenyl which is unsubstituted or substituted by one or more radicals selected from the group consisting of halogen,  $(C_1-C_4)$ alkyl,  $(C_1-C_4)$ haloalkyl,  $(C_1-C_4)$ alkoxy, and  $[(C_1-C_4)$ alkoxy]carbonyl, or is phenyl which is unsubstituted or substituted by one or more radicals selected from the group consisting of halogen,  $(C_1-C_4)$ alkyl,  $(C_1-C_4)$ haloalkyl,  $(C_1-C_4)$ alkoxy,  $(C_1-C_4)$ haloalkoxy,  $(C_1-C_4)$ alkylthio,  $(C_1-C_4)$ alkylsulfinyl,  $(C_1-C_4)$ alkylsulfonyl,  $NR^8R^9$ ,  $[(C_1-C_4)$ alkoxy]carbonyl,  $[(C_1-C_4)$ alkyl]carbonyl, phenyl, CN and  $NO_2$ , and
- $R^4$  are halogen, CN,  $(C_1-C_4)$ alkyl,  $(C_1-C_4)$ alkoxy,  $(C_2-C_6)$ alkenyl,  $(C_2-C_6)$ alkynyl  $(C_3-C_6)$ alkenyloxy,  $(C_3-C_6)$ alkynyloxy, where each of the 6 last-mentioned radicals is unsubstituted or substituted by one or more radicals selected from the group consisting of halogen,  $(C_1-C_6)$ alkoxy,  $(C_1-C_6)$ haloalkoxy,  $(C_1-C_6)$ alkylthio,  $(C_1-C_6)$ haloalkylthio,  $(C_1-C_6)$ alkylsulfinyl,  $(C_1-C_6)$ haloalkylsulfinyl,  $(C_1-C_6)$ alkylsulfonyl,  $(C_1-C_6)$ haloalkylsulfonyl,  $[(C_1-C_6)$ alkoxy]carbonyl,  $[(C_1-C_6)$ haloalkoxy]carbonyl,  $CONR^6R^7$ ,  $SO_2NR^6R^7$ , CN, OH,  $(C_3-$

PATENT  
514413-3802.1

$C_6$ )cycloalkyl,  $NR^8R^9$ , unsubstituted or substituted phenyl, unsubstituted or substituted heterocyclyl or are unsubstituted or substituted  $(C_3-C_6)$ cycloalkyl, unsubstituted or substituted  $(C_3-C_6)$ cycloalkenyl, unsubstituted or substituted heterocyclyl having 3 to 6 ring atoms, unsubstituted or substituted phenyl or  $[(C_1-C_4)alkyl]carbonyl$  or  $[(C_1-C_4)alkoxy]carbonyl$ , where each of the two last-mentioned radicals is unsubstituted or substituted in the alkyl moiety by one or more halogen atoms or are radicals of the formula  $C(O)-NR'-R''$ ,  $C(S)-NR'-R''$ ,  $CR'=N-Q^1-R''$ ,  $NR'-Q^1-R''$  or  $NR'''-N=CR'-R''$  where  $R'$ ,  $R''$  and  $R'''$  independently of one another are a hydrogen atom, an acyl radical or an unsubstituted or substituted  $(C_1-C_{10})$ hydrocarbon radical, and  $Q^1$  and  $Q^2$  independently of one another are a direct bond or a divalent group of the formula  $-O-$  or  $-N(R^+)-$ , where  $R^+$  is a hydrogen atom, an acyl radical or an unsubstituted or substituted  $(C_1-C_4)alkyl$  radical and  $R'$  together with  $R''$  or  $R^+$  together with  $R'$  or  $R^+$  together with  $R''$  may in each case form a heterocyclyl radical having 3 to 6 ring atoms which is unsubstituted or substituted,

1 is 0 or 1,

$R^6$  and  $R^7$  independently of one another are H,  $(C_1-C_4)alkyl$ ,  $(C_3-C_4)alkenyl$ ,  $(C_3-C_4)alkynyl$  or phenyl which is unsubstituted or substituted by one or more radicals selected from the group consisting of halogen,  $(C_1-C_4)alkyl$ ,  $(C_1-C_4)haloalkyl$ ,  $(C_1-C_4)alkoxy$ ,  $(C_1-C_4)alkylthio$ ,  $(C_1-C_4)alkylsulfonyl$ ,  $[(C_1-C_4)alkoxy]carbonyl$ , CN and  $NO_2$ , or

$R^6$  and  $R^7$  together with the nitrogen atom of the  $NR^6R^7$  group may form a heterocyclyl radical having 5 to 6 ring members which may be replaced by one heteroatom selected from the group consisting of N, O, and S and which is unsubstituted or mono- or polysubstituted by radicals selected from the group consisting of  $(C_1-C_4)alkyl$  and oxo,

$R^8$  and  $R^9$  are  $(C_1-C_4)alkylcarbonyl$ ,  $(C_1-C_4)haloalkylcarbonyl$ ,  $(C_1-C_4)alkoxycarbonyl$  or  $(C_1-C_4)alkylsulfonyl$ , or together with the nitrogen atom of the  $NR^8R^9$  group may form a heterocyclyl radical having 5 to 6 ring members which may contain one heteroatom selected from the group consisting of N, O, and S and which is unsubstituted or mono- or polysubstituted by radicals selected from the group consisting of  $(C_1-C_4)alkyl$  and oxo.

PATENT  
514413-3802.1

## Claim 27 (new)

27. A compound of the formula (I) or a salt thereof as claimed in claim 23 in which

R<sup>1</sup> is (C<sub>1</sub>-C<sub>6</sub>)alkyl which is unsubstituted or substituted by one or more radicals selected from the group consisting of halogen and (C<sub>1</sub>-C<sub>4</sub>)alkoxy, or is 3-oxetanyl, (C<sub>3</sub>-C<sub>4</sub>)alkenyl or (C<sub>3</sub>-C<sub>4</sub>)alkynyl,

R<sup>2</sup> is H, (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>3</sub>-C<sub>6</sub>)alkenyl, (C<sub>3</sub>-C<sub>6</sub>)alkynyl, where each of the three last-mentioned radicals is unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C<sub>1</sub>-C<sub>4</sub>)alkoxy, (C<sub>1</sub>-C<sub>4</sub>)alkylthio, (C<sub>1</sub>-C<sub>4</sub>)alkylsulfonyl, [(C<sub>1</sub>-C<sub>4</sub>)alkoxy]carbonyl, (C<sub>3</sub>-C<sub>6</sub>)cycloalkyl, CN and OH, or is (C<sub>3</sub>-C<sub>6</sub>)cycloalkyl which is unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C<sub>1</sub>-C<sub>4</sub>)alkyl, (C<sub>1</sub>-C<sub>4</sub>)alkoxy, [(C<sub>1</sub>-C<sub>4</sub>)alkoxy]carbonyl, CN and OH, or is (C<sub>3</sub>-C<sub>6</sub>)cycloalkenyl, (C<sub>1</sub>-C<sub>4</sub>)alkoxy, (C<sub>1</sub>-C<sub>4</sub>)alkenyloxy, (C<sub>1</sub>-C<sub>4</sub>)alkylamino or di[(C<sub>1</sub>-C<sub>4</sub>)alkyl]amino and

R<sup>3</sup> is H, (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>3</sub>-C<sub>6</sub>)alkenyl, (C<sub>3</sub>-C<sub>6</sub>)alkynyl, where each of the three last-mentioned radicals is unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C<sub>1</sub>-C<sub>4</sub>)alkoxy, (C<sub>1</sub>-C<sub>4</sub>)alkylthio, (C<sub>1</sub>-C<sub>4</sub>)alkylsulfonyl, [(C<sub>1</sub>-C<sub>4</sub>)alkoxy]carbonyl, (C<sub>3</sub>-C<sub>6</sub>)cycloalkyl, CN and OH, or is (C<sub>3</sub>-C<sub>6</sub>)cycloalkyl which is unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C<sub>1</sub>-C<sub>4</sub>)alkyl, (C<sub>1</sub>-C<sub>4</sub>)alkoxy, [(C<sub>1</sub>-C<sub>4</sub>)alkoxy]carbonyl, CN and OH, or is (C<sub>3</sub>-C<sub>6</sub>)cycloalkenyl or

R<sup>2</sup> and R<sup>3</sup> together with the nitrogen atom (N<sup>1</sup>) may form a heterocyclyl of 3 to 6 carbon ring atoms which contain one heteroatom selected from the group consisting of N, O, and S and which is unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>3</sub>)alkoxy, [(C<sub>1</sub>-C<sub>3</sub>)alkoxy]carbonyl and oxo,

R<sup>4</sup> are (C<sub>1</sub>-C<sub>4</sub>)alkyl, (C<sub>1</sub>-C<sub>4</sub>)haloalkyl, (C<sub>1</sub>-C<sub>4</sub>)alkoxy or halogen,

l is 0 or 1,

PATENT  
514413-3802.1 $R^5$  is H or methyl, $Q$  is O or  $NR^*$ , $R^*$  is H or  $(C_1-C_4)$ alkyl,

X and Y independently of one another are  $(C_1-C_4)$ alkyl,  $(C_1-C_4)$ alkoxy, where each of the two last-mentioned radicals is unsubstituted or substituted by one or more halogen atoms, or are  $(C_1-C_4)$ alkylthio, halogen or mono- or di $[(C_1-C_2)$ alkyl]amino, and

W is an oxygen atom.

## Claim 28 (new)

28. A compound of the formula (I) or a salt thereof as claimed in claim 23 in which

 $R^1$  is  $(C_1-C_3)$ alkyl, allyl, or propargyl, $R^2$  is H,  $(C_1-C_4)$ alkyl,  $(C_3-C_5)$ alkenyl,  $(C_3-C_5)$ alkynyl,  $(C_3-C_6)$ cycloalkyl or  $(C_3-C_6)$ cycloalkenyl, or $R^3$  is H,  $(C_1-C_4)$ alkyl,  $(C_3-C_5)$ alkenyl,  $(C_3-C_5)$ alkynyl,  $(C_3-C_6)$ cycloalkyl or  $(C_3-C_6)$ cycloalkenyl, or

$R^2$  and  $R^3$  together with the nitrogen atom ( $N^1$ ) may form a heterocyclyl of 3 to 6 ring carbon atoms in which one of the carbon atoms is optionally replaced by one heteroatom selected from the group consisting of N, O, and S and which is unsubstituted or substituted by one or more  $(C_1-C_6)$ alkyl radicals,

 $R^4$  are  $(C_1-C_3)$ alkyl or halogen,

l is 0 or 1,

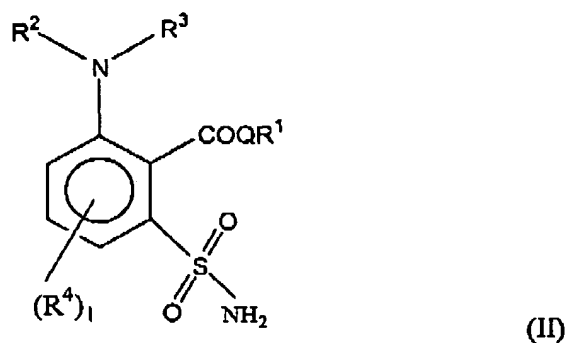
 $Q$  is O or  $NR^*$ , $R^*$  is  $(C_1-C_3)$ alkyl,X is  $(C_1-C_2)$ alkyl,  $(C_1-C_2)$ alkoxy,  $(C_1-C_2)$ alkylthio,  $(C_1-C_2)$ haloalkyl or  $(C_1-C_2)$ haloalkoxy,Y is  $(C_1-C_2)$ alkyl,  $(C_1-C_2)$ alkoxy, halogen,  $NHCH_3$  or  $N(CH_3)_2$ .

PATENT  
514413-3802.1

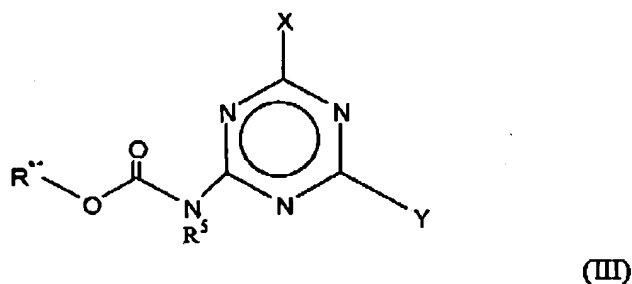
Claim 29 (new)

29. A process for preparing compounds of the formula (I) or salts thereof as defined in claim 23 which comprises

a) reacting a compound of the formula (II)

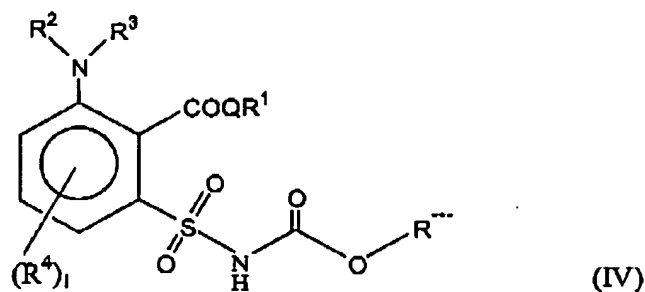


with a heterocyclic carbamate of the formula (III),



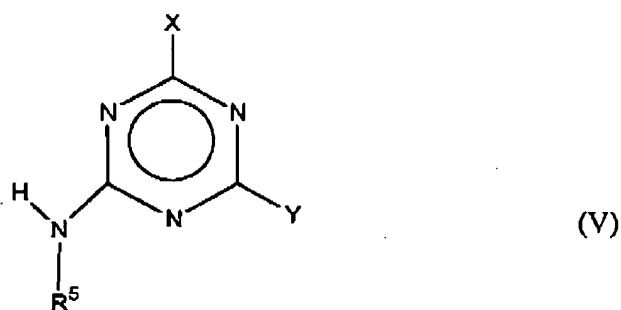
in which R⁶ is a substituted or unsubstituted C₁-C₂₀-hydrocarbon radical, or

b) reacting a sulfonylcarbamate of the formula (IV),



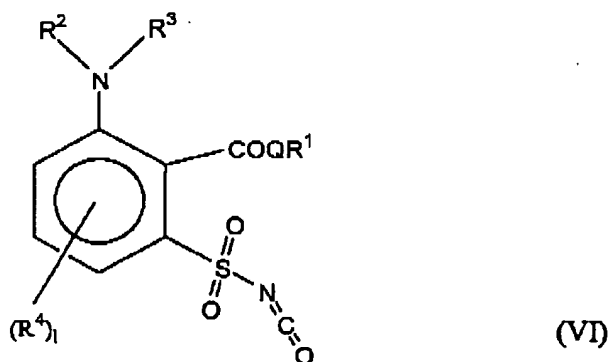
PATENT  
514413-3802.1

in which R<sup>\*\*\*</sup> is a substituted or unsubstituted C<sub>1</sub>-C<sub>20</sub>-hydrocarbon radical with an amino heterocycle of the formula (V)



or

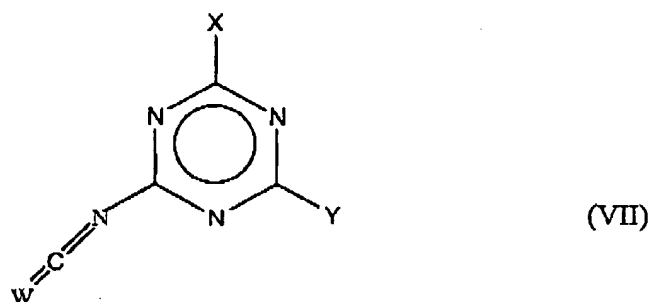
c) reacting a sulfonyl isocyanate of the formula (VI)



with an amino heterocycle of the formula (V) or

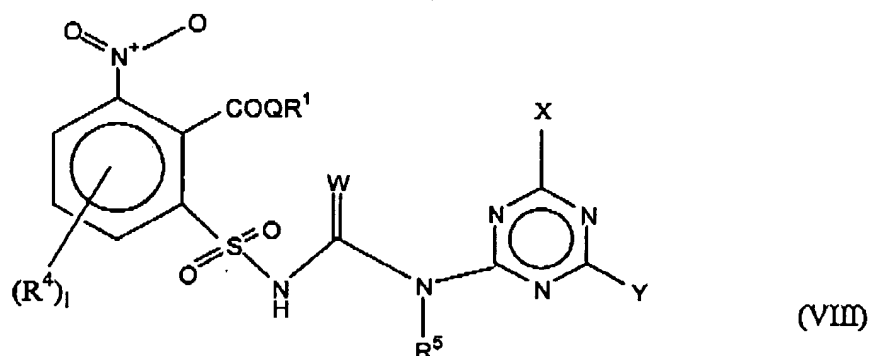
d) reacting a sulfonamide of the formula (II) with a (thio)isocyanate of the formula (VII)

PATENT  
514413-3802.1



in the presence of a base or

- d) reacting an amino heterocycle of the formula (V) initially under base catalysis with a carbonic ester and reacting the resulting intermediate in a one-pot reaction with a sulfonamide of the formula (II) (see variant a), or
- f) reacting a phenylsulfonyl urea of the formula (VIII)



by the reduction of the nitro group and, if appropriate, further conversion of the hydroxylamine or amine function that is released to give the sulfonyl urea of the formula (I),

wherein the formulae (II) to (VIII) the radicals, groups and indices  $R^1$ ,  $R^5$ , Q, V, W, X, Y, Z, and l are as defined in formula (I) of the claim 23.



PATENT  
514413-3802.1

## Claim 30 (new)

30. A herbicidal plant-growth regulating composition comprising a) one or more compounds of the formula I or a salt thereof as claimed in claim 23, and b) formulation auxiliaries which are customary in crop protection.

## Claim 31 (new)

31. A method for controlling harmful plants or for regulating the growth of plants, which comprises applying an effective amount of one or more compounds of the formula (I) or a salt thereof as claimed in claim 23 to the harmful plants or plants, to their plant seeds or to the area on which they grow.

## Claim 32 (new)

32. The compound of claim 23, wherein:

R<sup>1</sup> is H, methyl, ethyl, i-propyl, allyl, or 3-oxetanyl;

R<sup>4</sup> is methyl, fluoro, chloro, methoxy, or NO<sub>2</sub>;

l is 0 or 1;

R<sup>5</sup> is H or methyl;

Q is oxygen;

W is oxygen; and

X, Y independently of one another are methyl, CF<sub>3</sub>, methoxy, ethoxy, -NHMe, -N(Me)<sub>2</sub>, or -OCH<sub>2</sub>CF<sub>3</sub>,

## Claim 33 (new)

33. The compound of claim 32, wherein

R<sup>2</sup> is a group of the formula R<sup>0</sup>-Q<sup>0</sup>, in which R<sup>0</sup> is a hydrogen atom and Q<sup>0</sup> is a direct bond; and

R<sup>3</sup> is a hydrogen atom or (C<sub>1</sub>-C<sub>12</sub>)alkyl.